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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,045	06/24/2003	Leonard I. Horey	Sunbed-2-4176	1875

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EXAMINER

PATEL, VINOD D

ART UNIT PAPER NUMBER

3742

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,045

Applicant(s)

HOREY ET AL.

Examiner

Vinod D. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/24/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED OFFICE ACTION

INTRODUCTION

1. This application/control number 10/603,045 has been examined. This is the first action on the merits of the claimed invention. The application has claims 1-17 pending.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: conductive path 21. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1-4, 8 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka (US5298722).

Tanaka discloses a serpentine conductive path (1) comprising: a plurality of generally parallel wires (2); a pair of conductive busses (3, 3') running generally parallel to one another and generally perpendicular to the wires; where in the wires are electrically connected to the conductive buses and wherein conductive buses comprises a plurality of isolation punches so as to form an electrically conductive serpentine pattern in conjunction with the wires as shown in

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Fig. 1, temperature sensitive wires (2) and buses (3, 3') are woven into woven substrate. The spaces between the buses results in an isolation punches or holes (Column 4, line 10-20).

As for claims 2-3, see col. 2, line 25-32, column 3, line 32-68 and column 4, line 1-10 & 48-51.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US5298722) as applied to claims 1-4 and 8 above, and further in view of Kochman (US5824065).

Tanaka does not disclose wires having a positive temperature coefficient resistivity and wires are crimped/welded to the buses and woven substrate is in blanket.

Kochman discloses a woven electro conductive heater (Fig. 4A,B) comprising a plurality of generally parallel wires (11) having an optional positive temperature coefficient material (19), a pair of conductive buses (13) (column 7, line 45-60). Heater can be utilized in electrically heated blankets, pads, mattresses spread sheets and carpets, wall, furniture, ceiling and floor electric heaters, seat heaters, etc. (column 11, line 14-25).

It would have been obvious to one of ordinary skill in the art to use the positive temperature coefficient material for the heater wire of Tanaka and use heating device for the blanket as taught and suggested by Kochman to control the temperature without using thermostat

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because PTC (positive temperature coefficient) material have self limiting properties and use the heating device for the blanket to use in device for a variety of purposes. See column 4, line 18-19, column 8, line 28-31, column 7, line 57-60 of Kochman.

7. Claims 6-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US5298722) as applied to claims 1-3 above, and further in view of Gardner (US6483087).

Tanaka does not disclose wires are crimped/welded to the buses.

Gardner discloses a serpentine conductive path (Fig. 4) comprising: a plurality of generally parallel wires; a pair of conductive busses running generally parallel to one another and generally perpendicular to the wires; where in the wires are electrically connected to the conductive buses and wherein conductive buses comprises a plurality of isolation punches (26) to form an electrically conductive serpentine pattern in conjunction with the wires. The reference discloses (column 7, line 34-43) electrical leads in the form of wires can be attached to the copper foil bus through currently known methods such as solder, brazing, ultrasonic welding or crimping.

It would have been obvious to one of ordinary skill in the art to connect wire to the busses by crimping/welding as taught by Gardner for the heater wire of Tanaka to connect to the busses to establish a connection to complete the electrical circuit.

8. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US5298722), and further in view of Gray (US4250397).

Claim differs from cited art in calling for punching isolation holes into the conductive buses to form an electrically conductive serpentine pattern in conjunction with wires. Even

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though Tanaka discloses isolation spaces into the conductive buses to form an electrically conductive serpentine pattern in conjunction with wires as described above, the reference is silent about how the holes are formed.

Gray teaches a heating element in which isolation holes are punched into the bus bar to form a serpentine path (Column 6, line 4-11).

It would have been obvious to one of ordinary skill in the art to punch holes into conductive buses of Tanaka as taught by Gray to form an electrically conductive serpentine pattern in conjunction with wires. A specific order in which these steps are performed is not required by the claims.


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ohgushi (US4983814) relates to heating sheets, McGaffigan (US5475203) relates to woven mesh heater, Kleshchik (US6649886) relates to electric heating cloth and method.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod Patel whose telephone number is 703-308-5227. The examiner can normally be reached at 7.30 A.M. TO 4.00 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Pothier can be reached at 703-308-0265. The fax phone numbers for the organization where this application or proceeding is 703-872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

VP



Vinod Patel
Patent Examiner
Art Unit 3742



DENISE POTHIER
PRIMARY EXAMINER